Michael Dang

Los Angeles Metropolitan Area/Orange County

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Technical Skills

Languages <u>Proficient</u> Python(4yrs), JavaScript(3yrs), C++(3yrs) <u>**Intermediate**</u> SQL(2yrs), bash(2yrs), TypeScript(1yr)
Frameworks: ReactJS/React Native, Jest, Reanimated, ExpressJS, Tailwind CSS, FastAPI
Technologies/Cloud Services: AWS EC2/S3/CloudFront/Lambda, Firestore, PostgreSQL, Docker, Stripe, Jenkins, git

Projects

CardCraft AI   **August 2024**
- Developed a **full-stack SaaS application** allowing users to generate flashcards from their own text content.
- Implemented a payment processing system using the **Stripe API**, including a webhook to automatically update users' subscription tiers upon successful payment to grant more privileges to 'Pro' users, such as publishing rights, etc.
- Utilized **Firestore** to persist users and flashcard data, with authentication managed through **Clerk/Firebase**.

Cross-Language Content Generator   **April-May 2024**
- Developed a **full-stack** language learning platform featuring integrated English translations facilitated by the **OpenAI API**, enabling users to enhance their Spanish reading comprehension skills.
- Utilized **AWS S3** for scalable and durable file storage and **AWS CloudFront** to optimize content delivery, reducing load time by 30% through edge caching and global distribution.
- Implemented authentication with **Firebase Auth** for trust, security and scalability, **Google Auth** with Single Sign-On (**SSO**) for consistency across other Google services to increase user conversion rate.

Word-Guessr Web Game   **October-December 2023**
- Implemented a **Jenkins CI/CD** pipeline to automate game builds and deployments in **Docker** containers on an **AWS EC2** server running **Linux** with **NGINX**, enhancing software delivery efficiency and boosting developer productivity.
- Utilized **Redis** for caching hot data, **SQLite** for cool data to reduce database congestion.
- Used **Cron** execute data aggregation updates at regular intervals to reduce database congestion from frequent updates.

DiscussHub   **June 2024**
- Created a social media platform enabling user-generated content through posts, comments, replies, likes and dislikes.
- Utilized **PostgreSQL** for managing user, post, and comment data storage, updates, and aggregation.
- Implemented **unit testing** for API endpoints using **Jest** framework including mocking PostgreSQL server interactions to simulate various data scenarios and edge cases to ensure robustness and reliability through comprehensive test coverage.

Schedule Monkey   **June 2024**
- Collaborated with teammates to create an AI assistant to manage user's events in Google calendar.
- Utilized **NextJS** to create an audio recorder user interface and stream data to socket on **FastAPI** server.
- Created **Docker** containers to run services required by the app, eliminating the Python version conflict issue and prepared EC2 instance for deployment

Education

California State University, Fullerton   **Jan. 2021 – Aug. 2024**
Master of Science in Computer Science   *Fullerton, CA*

University of California, Los Angeles   **Aug. 2007 – Dec. 2013**
Bachelor of Science in Chemical Engineering   *Los Angeles, CA*

Relevant Coursework

- Data Structures
- Software Engineering
- Advanced Algorithms
- Database Management
- Artificial Neural Net
- Back-end Engineering
- AI/ML
- Software Maintenance

Experience

Headstarter AI   **July 2024 - Current**
Software Engineer Fellow   *Remote*
- Collaborated with team of four to develop a movie recommender system based on music profile through **Spotify API**.
- Used **Nextjs** and **TypeScript** to develop a responsive front-end for application, including Spotify authentication flow.

Extracurricular

Association for Computing Machinery (ACM) at CSUF | *Member*
- Participated in weekly tutorials covering data structures, algorithms, and current technology stacks.

Others: Intra mural volleyball, soccer, hiking, photography